DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000906 Address: 333 Burma Road **Date Inspected:** 17-Nov-2007

City: Oakland, CA 94607

OSM Arrival Time: 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island

CWI Name: CWI Present: Yes Ye Yong Yun No N/A **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG, 77 & 89

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe the Welding operations of the Caltrans Mock-up # 114 and Orthotropic Box Girder (OBG), for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector observed ZPMC welder Ms. Gu Cai Hong performing Flux Cored Arc Welding (FCAW) at 89.00 Meter Mock-up strut plate MP517-1 to 1114-1 weld MUSB-MA26-9A ZPMC Quality Control (QC) Certified Welding Inspector Mr. Ye Yong Jun stated, welding was being performed in accordance to Welding Procedure Specification (WPS) WPS-B-T-4221-B-U3-5. The QA Inspector recorded the following welding parameters from the above mentioned weld, amperage 590, voltage 30.5, travel of speed 476 with a heat input of 2. 27 kj/mm.

Caltrans QA Inspector observed ZPMC personnel performing FCAW welding of OBG Deck Plate Panel weld trial. Welding was performed on the Closed rib to diaphragm plate. The Complete Joint Penetration portion of the weld was back gouged and visually inspected by ZPMC QC personnel. Please see the attached photo below of back gouged area.

Caltrans QA Inspector Viars observed ZPMC Welder Mr. Bai Wan Ming performing Flux Cored Arc Welding (FCAW) on Mock-up # 114.00 Skin B Interior Splice assembly A65. ZPMC Certified Welding Inspector Mr. Lujian Ping stated welding was being performed in accordance to WPS-B-T-2231-TC-U5-F. Caltrans QA Inspector Viars recorded the following welding parameters, amperage 312, voltage 31.7, travel speed of 314 and a heat input of 1.89 kj/mm.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Caltrans Inspector Viars observed ZPMC personnel positioning # 77 Meter Mock-up SA104 Diaphragm to web plates for fit-up. Fit-up was still in progress at the end of the shift.

The Caltrans QA observed welding appeared to be in conformance with AWS D1.5 requirements.



Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

| Inspected By: | Viars,Larry | Quality Assurance Inspector |
|---------------------|----------------|-----------------------------|
| Reviewed By: | Cuellar,Robert | QA Reviewer |